

SHIFTING CLASSES: INTRODUCTION

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GERMANIC PAST TENSE

Strong

begin-began-begun
(English)

kijken-keek-gekeken
(Dutch)

fliegen-flog-geflogen
(German)

Regular

fragen-fragte-gefragt
(German)

Mixed

be-was-been
(English)

lachen-lachte-gelachen
(Dutch & German)

seek-sought-sought
(English)

ask-asked-asked
(English)

gehen-ging-gegangen
(German)

denken-dacht-gedacht
(Dutch)

aaien-aaide-geaaid
(Dutch)

vriezen-vroor-gevroren
(Dutch)

vragen-vroeg-gevraagd
(Dutch)

haben-hatte-gehabt
(German)

Irregular

Weak

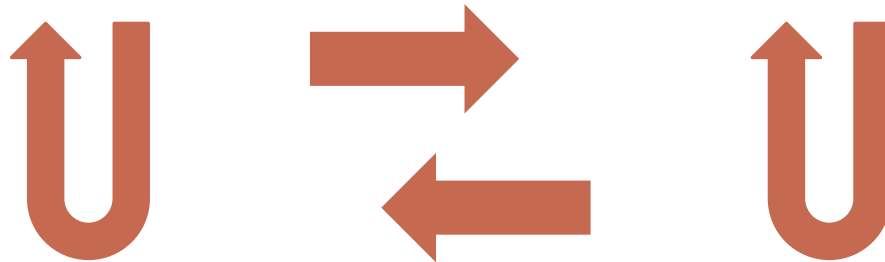
HYBRID SYSTEM IN FLUX

- Strong inflection

- Ablaut classes
- Oldest
- Indo-European aspect

- Weak inflection

- Dental suffix
- Innovative
- Germanic



EXCITING TIMES

- New large corpora & analysis techniques
- New approaches in computational simulation
- New detailed studies of language play
- New ideas on the factors at play

EXCITING TIMES

Dangers

- Lose track of the big questions
- Philological scrutiny ↔ bird's eye perspective
- Focus on a single Germanic language

DIFFERENT METHODOLOGIES

- Philological work
- Corpus-based research
- Experiments & Surveys
- Computational simulation

PHILOLOGICAL WORK

What is the origin of the preterite weak dental suffix?

- **‘To do’ composition theory: first element?** (Loewe 1898: 356-357; von Friesen 1925; Sverdrup 1929; Hermann 1948; Wisniewski 1963; Tops 1974; Hill 2010)
- **Dental suffix of the past participle: IE suffix *-to-** (Begemann 1873, 1874; Wagner 1960; Watkins 1962; Ball 1968; Meid 1971)
- 2nd person sg. secondary ending of the IE aorist (Sievers 1924; Sehrt 1944; Krause 1968)
- 3rd person sg. ending of the IE medio-passive perfect (Collitz 1921)
- Reformation of *t*-element ~ Latin *-ta* suffix (Prokosch 1939)
- 2nd person sg. ending *-*tha* of IE perfect (Must 1951; 1952)
- IE *dh*-determinative (Lehmann 1943)
- Functionally parallel IE verbal formations in *-*t* and *-*dh* (Shields 1982)
- Multiple source construction (Hirt 1934; Birkhan 1979; Bammesberger 1986)
- ...

CORPUS-BASED RESEARCH

What are the (diachronic) developments and what factors may predict these developments?

- Token frequency of the verb
- Class membership: type or token frequency
- Phonological proximity/analogy
- Rhythm
- Prescriptivism
- Language contact
- Register & language variety
- ...

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- ...

How do children acquire the past tense?

- U-shaped learning
- Increase in vocabulary

EXPERIMENTS & SURVEYS

What are the (synchronic) developments and what factors may predict these developments?

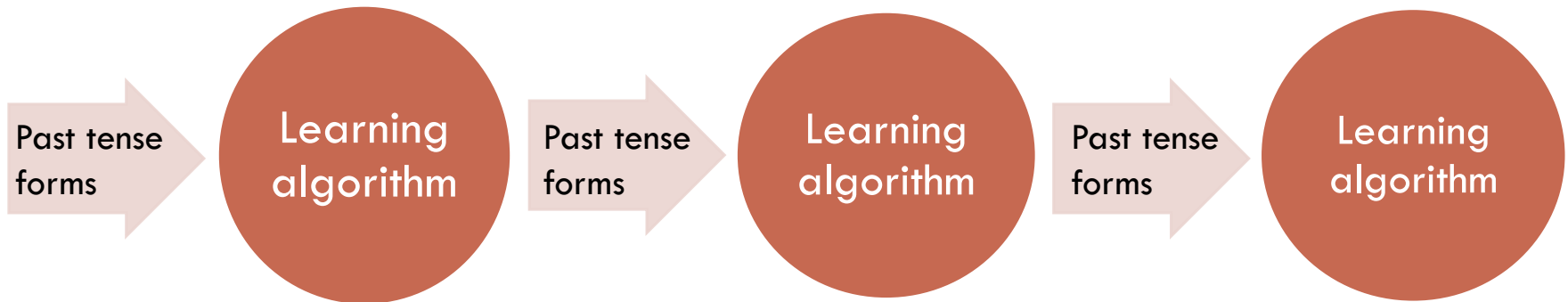
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COMPUTATIONAL SIMULATION

- Iterated Learning: The Germanic past tense as a case study of language acquisition



COMPUTATIONAL SIMULATION

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Connectionists: Neural Network

vs.

Generativists: Symbolic Rules + Memory

Rumelhart & McClelland (1986), Macwhinney & Leinbach (1991), Plunkett & Marchman (1991, 1992), Hare & Elman (1995), Plunkett & Juola (1999)

Pinker & Prince (1988), Ling & Marinov (1993), Marcus et al. (1995), Taatgen & Anderson (2002), Yang (2002)

COMPUTATIONAL SIMULATION

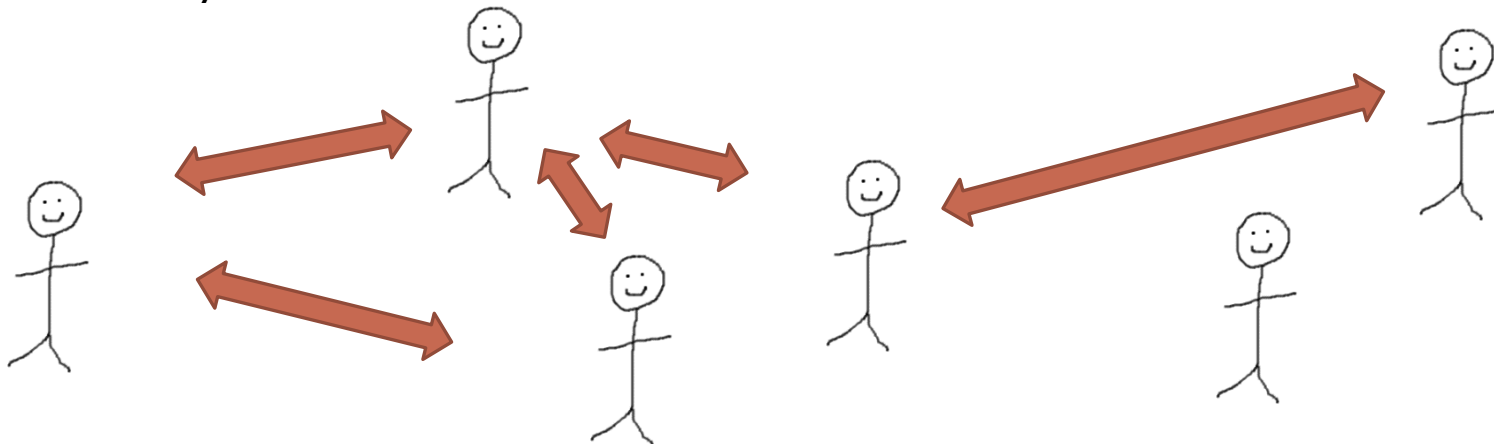
- Agent-based modeling: What are the minimal assumptions needed to explain

- that highly frequent verbs better retain their strong forms?

(Calaioni et al. 2015; Piipops & Beuls subm.)

- that a nascent weak inflection overthrew a more frequent and regular strong system?

(Piipops, Beuls & Van de Velde subm.)



PROGRAM

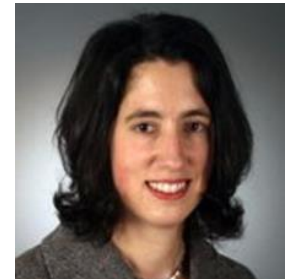
- Lieselotte Anderwald

Going from strength to strength – on the persistence of (certain) strong verbs in English



- Julia Schlüter

Alternant forms of strong and weak verbs in English: The interplay between the principles of rhythmic alternation and morphological biuniqueness



- Jessica Nowak

The past tense-debate from a diachronic point of view: regularization and irregularization of German verbs



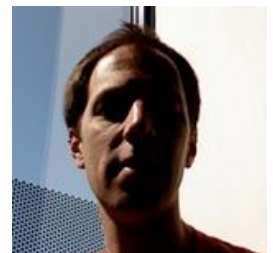
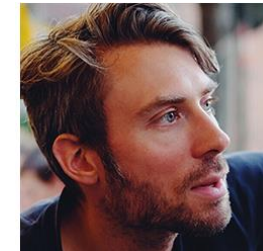
Lunch

PROGRAM

- Bernard De Clerck & Klaar Vanopstal
Survival of the fittest? Verb weakening in postcolonial varieties of English
- Freek Van de Velde & Britta Kestemont
Using mixed-effects logistic regression to assess the determinants of regularisation of strong inflection in Dutch
- Oscar Strik & Remco Knooihuizen
Jocular analogy and verbal ablaut

Coffee break & poster session

- Dirk Pijpops, Katrien Beuls & Freek Van de Velde
Fighting in broken formation. The competition between the Dutch strong ablaut classes and weak suffix inflection in an agent-based model
- Discussion



DISCUSSION

Methodology

- How do our different methodologies tie together? To what extent should large-scale corpus research and computational simulations take heed of meticulous philological details?
- Should we look for more factors determining the weakening/strengthening of verbs, or fewer, but more general underlying causes of these factors?
- Should our explanations focus on a single, representative language user or on the language community?

The competition itself

- How can we account for both strong verbs becoming weak and weak verbs becoming strong?
- Can and should we draw a line between regular and irregular past tenses, and if so, where?
- What's the relation between finite past forms and past participles?
- Why this unremitting struggle between strong and weak? Is there an end-point to this competition, and if so, what is it?

DISCUSSION

Context

- What are the similarities and differences between the various Germanic languages and (L2) varieties and why do they exist?
- What is the influence of extralinguistic environmental changes, e.g. demographic fluctuations, and how can we investigate this?
- What is the influence of intralinguistic environmental changes, e.g. the present perfect losing its aspectual meaning in German, Dutch, Afrikaans,...?

Language in general

- What is the relevance of our findings for explaining other (language) phenomena, e.g. for understanding (cultural) evolution of language?
- What's the relation between past tense competition and similar competitions, e.g. in plural noun formation?

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